

REMARKS

This Amendment responds to the Final Office Action mailed October 26, 2006, in the above-identified application. A Request for Continued Examination (RCE) accompanies this Amendment. Accordingly, entry of the Amendment and allowance of the application are respectfully requested.

Claims 1-18 were previously pending in the application. By this amendment, claims 1, 2, 8, 9, 15 and 16 are amended. Claims 5-7 and 12-14 are canceled without prejudice or disclaimer. New claims 19-21 are added. Accordingly, claims 1-4, 8-11 and 15-21 are currently pending, with claims 1, 8 and 15 being independent claims. No new matter has been added.

The Examiner's courtesy in discussing a proposed claim amendment with Applicants' attorney on January 22, 2007, is acknowledged with appreciation.

The Examiner has finally rejected claims 1-18 under 35 U.S.C. §103(a) as unpatentable over Bommaiah et al (AmRoute Internet Draft 1998), and further in view of English (US 6,757,553), Trompower (US 5,924,040) and Proctor Jr. (US 2003/0048770). The rejection is respectfully traversed in view of the amended claims.

Amended claim 1 is directed to a method for adding devices to a wireless mesh network. The method comprises determining if an open area is present in the vicinity of a wireless device in the wireless mesh network, if an open area is not present, taking no action to add devices to the wireless mesh network, if an open area is present, adjusting an antenna sensitivity pattern of the wireless device in the wireless mesh network to exhibit a directional sensitivity pattern having increased range in a direction of the open area in comparison with an omnidirectional sensitivity pattern to enable discovery of a wireless device that is out of range of the omnidirectional sensitivity pattern, transmitting a query using the adjusted antenna sensitivity pattern, and if a response to the query transmitted using the adjusted antenna sensitivity pattern is received from a responding wireless device within a predetermined time period, adding the responding wireless device to the mesh network.

The amendment finds clear support at least in Fig. 6 and paragraphs 0015, 0046 and 0047 of the application as originally filed. Amended claim 1 is based on the proposition that wireless devices at the edge of a wireless mesh network are more likely to be able to add nodes to the mesh network by the use of directional antennas than wireless devices in the middle of the mesh network.

None of the cited references, including Bommaiah, English, Trompower and Proctor Jr., discloses or suggests determining if an open area is present in the vicinity of a wireless device in a wireless mesh network, and if an open area is present, adjusting an antenna sensitivity pattern of the wireless device to exhibit a directional sensitivity pattern having increased range in a direction of the open area in comparison with an omnidirectional sensitivity pattern, as required by amended claim 1. For these reasons amended claim 1 is clearly and patentably distinguished over Bommaiah in view of English, Trompower and Proctor Jr, and withdrawal of the rejection is respectfully requested. Claims 2-4 and 19 depend from claim 1 and are patentable over the cited references for at least the same reasons as claim 1.

Amended claim 8 is directed to a wireless device configured to operate in a wireless mesh network and contains apparatus limitations that parallel the method limitations of amended claim 1. Amended claim 8 is clearly patentable over Bommaiah in view of English, Trompower and Proctor Jr. for at least the reasons discussed above in connection with claim 1. Accordingly, withdrawal of the rejection is respectfully requested. Claims 9-11 and 20 depend from claim 8 and are patentable over the cited references for at least the same reasons as claim 8.

Claim 15 is directed to a computer readable medium having computer executable instructions to perform acts for adding devices to a wireless mesh network and recites acts that parallel the method limitations of amended claim 1. Amended claim 15 is clearly patentable over Bommaiah in view of English, Trompower and Proctor Jr. for at least the same reasons as claim 1. Accordingly, withdrawal of the rejection is respectfully requested. Claims 16-18 and 21 depend from claim 15 and are patentable over the cited references for at least the same reasons as claim 15.

Based upon the above discussion, claims 1-4, 8-11 and 15-21 are in condition for allowance.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests the necessary one month extension of time. If the fee occasioned by this response is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Dated: January 26, 2007

Respectfully submitted,

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